

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

**Kamilo Feher**

Serial No.: **09/370,360**

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Title: **Spectrally Efficient FQPSK, FGMSK,  
and FQAM for Enhanced Performance  
CDMA, TDMA, GSM, OFDM, and  
Other Systems**

Examiner: **Tran, Khanh C.**

Art Unit: **2631**

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By:

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Assistant Commissioner for Patents  
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**AMENDMENT**

Sir:

In response to the telephonic communication from the Publications Branch on 10 September 2002, applicant provides the requested brief description of figures 10b, 11b, 11c, 13b, and 13c. This information is submitted in the form of an amendment and introduces no new matter. Please amend the application as follows:

**IN THE BRIEF DESCRIPTION OF DRAWINGS**

Delete the paragraphs beginning at page 13, line 23 through page 14, line 1, and insert the following paragraphs:

*C!* **FIG. 10b** shows the implementation architecture of an alternative XCSI with PL single or multiple XCSI and/or Peak Limiter (PL) processor.

**FIG. 11a** illustrates NRZ signal and shaped Feher Return-to-Zero (FRZ) signal patterns and an embodiment having TCS response and cascade LR filters in which the LR filter is implemented with digital IIR and/or FIR filters.

**FIG. 11b** shows a pre-processor based architecture of a BRA system with single or multiple Signal Element (SE) storage and/or inverter and of single or multiple D/A based architecture having selectable 1 to N filter channel banks.

**FIG. 11c** shows an implementation of a Bit Rate Agile (BRA) pre-processor with single or multiple wavelets Signal Element (SE) storage and/or inverter and of filtered SE and ACM processors is illustrated.

**FIG. 12a** shows analog implementation components for cross-correlated and/or TCS-filtered data patterns and signals for bit rate agile and for high bit rate applications are shown.

**FIG. 12b** shows an analog BRA baseband implementation alternative of a TCS response processor for cross-correlated or not cross-correlated I and Q signals with selection or combined cascaded LR filter embodiment of this invention.

**FIG. 13a** is a mixed analog and digital circuit implementation alternative of this cross-correlated TCS response processor in cascade with LR filters.

**FIG. 13b** shows an other cross-correlated alternative implemented with a combination and/or selection of analog and digital circuits.

**FIG. 13c** shows a detailed implementation structure for one of the channels (I or Q) of a TCS response processor in cascade with a LR filter. In some embodiments the TCS processor contains cross-correlation between the I and Q channels while in other implementations there is no cross-correlation between the TCS response and cascaded LR filtered signals.